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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,898	01/17/2002	Hegeon Kwun	090936.0445	1790

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EXAMINER

FAYYAZ, NASHMIYA SAQIB

ART UNIT PAPER NUMBER

2856

DATE MAILED: 01/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
10/051,898

Applicant(s)
Kwun et al

Examiner
Nashmiya Fayyaz

Art Unit
2856



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) /
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) /
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 2856

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 and 6-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Anway-U.S. Patent # 4,083,229.

As to claims 1- , Anway discloses an apparatus for detecting and locating a fluid leak in a pipe in which vibration produced by the leak is detected by a pair of microphones/ transducers 22 and 24 and is converted to electrical signals which are correlated by variably time-delaying one signal relative to the other to determine if they are the same or not to determine the location of the leak defect, see Abstract and col.2, lines 30-60. Further, polarity detector 42/52 passes only signals above 0, i.e. positive signals. As to claims 6-9 as best understood note that delay. Lines 54 and 54a which operate as gates as described in col. 7, lines 48 et seq and illustrated in Figs. 3-4.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2856

4. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anyway in view of Williams et al - U.S.2001/0045 129.

As to claims 4-5, Anyway fails to teach conversion of the data to the frequency domain. In a related prior art device, Williams et al teach an apparatus for determining the position of a leak signal in a pipe by also employing two sensors and correlating the detected signals, see Abstract. Further, Williams et al teach that the signals can be detected employing either the time or the frequency domains, note page 1, passages 9 and 10: Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have employed the frequency domain for the data analysis as it is clearly taught by Williams et al as a matter of design choice of known alternatives.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, on line 9, it is unclear what "data" is being referred to. On line 12, "the signals" and on line 13 "the probes" lack clear antecedent basis. Note only 2 probe "positions" are claimed, not 2 probes. On line 15, "both data sets" is unclear. In claims 2-9, "the data" lacks clear antecedent basis. In claim 6, it is unclear what "data values" are incremented or how. Also, it is not understood what "each gate length" means. In claim 7, which "two signals" are being

Art Unit: 2856

referred to? In claim 8, what do “peak signal values” and “each gate” refer to? In claim 9, again what does “each gate” refer to?

7. Any inquiry concerning this communication should be directed to N. Fayyaz at telephone number (703) 305-4891.


Fayyaz/ek

01/07/02


DANIEL S. LARKIN
PRIMARY EXAMINER